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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,862	09/29/2005	Chung Ho Lam	37388-405100	3976
27717	7590	04/12/2010		
SEYFARTH SHAW LLP				
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CHICAGO, IL 60603-5803				
EXAMINER				
PHASGE, ARUN S				
ART UNIT		PAPER NUMBER		
1795				
MAIL DATE		DELIVERY MODE		
04/12/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/531,862

Applicant(s)

LAM, CHUNG HO

Examiner

Arun S. Phasge

Art Unit

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 11-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SI/226)
Paper No(s)/Mail Date 4/19/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group I in the reply filed on 11/6/09 is acknowledged. The traversal is on the ground(s) that Groups 1 and 2 are directly related to one another. This is not found persuasive because as shown in the prior action, the groups do not relate to a single general inventive concept, because the method claims do not require the use of the alternate ridges and valleys.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required

feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 3 and 4 recite the broad recitation of current density, and the claim also recites a narrower range or a single value which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carey et al. (Carey), U.S. Patent 6,149,797 in view of Khudenko, U.S. Patent 5,348,629.

The Carey patent discloses the claimed electrolysis process for the recovery of metal from an aqueous solution wherein on electrolyzing the solution metal is cause to deposit on a deposition surface of a cathode the cathode including the step of using an electrode having a surface that would produce the claimed current density claimed (see col. 5, lines 39-60). The patent further discloses the use of the same range of current density (see col. 9, lines 40-56) and the metal being removed includes copper (see col. 8, lines 1-8). The use of a mesh electrode described in Carey would allow the areas recited in claim 2.

The Carey patent does not disclose the inducing of the high and low current density as recited in the claims. The Khudenko patent is cited to show modification to the surface of the cathode produces the induction recited in the claims and produces a "powdery" metal deposit which would be easier to remove (see col. 11, lines 27-41).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Carey by the teachings of Khudenko.

One having ordinary skill in the art would have been motivated to do this modification, because the Khudenko patent teaches the modification to the shape of the cathode produces the induction deposition as claimed in the method.

Claims 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carey as applied to claims above, and further in view of Chorzempa, U.S. Patent 6,503,385.

The Carey patent discloses the removal of the deposited metal, by peeling or stripping (col. 7, lines 17-21). The patent fails to disclose the use of a scrapper as claimed.

The Chorzempa patent is cited to show the use of a scraper used in the art to remove deposited metal from a cathode, wherein the scarper is moveable as recited in the claims and is within the skill of the ordinary artisan to use other movements relative to the electrodes (see col. 3, lines 1-37).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Carey by the teachings of Chorzempa.

One having ordinary skill in the art would have been motivated to do this modification, because the Chorzempa patent teaches the conventional use of scrapers to remove metal deposits from cathodes during the electrolysis as recited in the claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arun S. Phasge whose telephone number is (571) 272-1345. The examiner can normally be reached on MONDAY-THURSDAY, 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X. Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Arun S. Phasge/
Primary Examiner, Art Unit 1795

asp

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